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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,177	09/19/2000	Takashi Shiraishi	016907/1143	4823

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EXAMINER

PHAM, HAI CHI

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 01/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/665,177

Applicant(s)

SHIRAISHI ET AL.

Examiner

Hai C Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-10, 12, 13, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 2, 3 and 11 is/are rejected.
- 7) ☒ Claim(s) 4 and 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2, 3, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiraishi et al. (U.S. 5,159,193).

Shiraishi et al. discloses an image forming apparatus comprising an optical device, which includes a light source (12), a forwardly deflecting optical set including a first lens (collimator lens 14) for providing light beams from said light source with a predetermined characteristic (collimated light beams), a second lens (16) for converging said light beams from said first lens in a first direction (sub-scanning direction) (col. 5, lines 43-51), a polygon mirror unit (66) for deflecting the light beams from said forwardly deflecting optical set into a second direction (main scanning direction) substantially perpendicular to the first direction, and a third lens (imaging lens set 70) for forming the light beams deflected by said polygon mirror unit as an image onto a predetermined image surface (of the photosensitive body 90) at substantially equal speed (col. 3, lines 29-34), wherein said third lens has a positive power in the second direction (col. 4, lines 37-60), and said second lens has a power in the second direction (the plastic lens 16 having negative power in the main scanning direction) (col. 4, lines 4-8), a

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photoreceptor drum (rotating photosensitive body 90), which receives said light from said optical scanning device, and a transferring apparatus (not shown), which transfers a toner image on said photoreceptor drum to a medium (not shown) (col. 3, lines 50-56).

***Allowable Subject Matter***

3. Claims 5-10, 12, 13, 17, 18 are allowed.
4. Claims 4, and 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter: the primary reasons for the indication of the allowability of claims 5-10, 12, 13, 17, 18 is the inclusion therein, in combination as currently claimed in each of the corresponding base claims, of the limitation that:
  - the second lens includes a resin lens and a convex glass lens, the resin lens having a projection abutting in the direction of the convex surface of the glass lens (claims 5, 6),
  - the second lens includes a resin lens and a convex glass lens, and a deformable sheet of constant thickness is provided between the resin lens and the glass lens (claim 7),
  - the second lens includes a resin lens and a convex glass lens, the resin lens having a surface whose radius of curvature in the main scanning direction is varied along the sub-scanning direction (claims 4, 8, 15),

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- the second lens includes a resin lens and a convex glass lens, the resin lens having a surface whose radius of curvature in the sub-scanning direction is varied along the main scanning direction (claims 9, 12, 17, 18),
- the second lens includes a resin lens and a convex glass lens, the resin lens having a surface whose radius of curvature in the main scanning direction is varied along the main scanning direction (claims 10, 13).

Each of the above limitations is neither disclosed nor taught by the prior art of record, alone or in combination.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 2, 3, 11 have been considered, and are traversed in view of the new grounds of rejection as stated above in this Office action.

### ***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

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308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM  
PRIMARY EXAMINER  
January 3, 2003